

Approved Minutes of the Technical Advisory Committee Meeting
September 16, 2008

Members present: Roger Thompson Jeffrey Williams
Rodney Pingree Lance Phelps

Others present: Claude Chevalier John Beauchamp
Gary Adams Anne Whiteley

Scheduled meetings:

None scheduled

Review of minutes

The draft minutes for the August 19, 2008 meeting were reviewed and accepted.

Water Treatment Systems

The discussion from previous meetings on this topic was continued. Rodney asked why we would regulate treatment for primary standards in SFR systems if we will not regulate treatment for pathogens in those systems. Rodney does not support deregulating treatment for pathogens or for primary standards but wonders why we would regulate treatment for primary standards after deciding to not regulate treatment for pathogens.

Claude asked if we had reached agreement that a qualified designer would be OK. The group decided the answer was yes and the minutes from the August meeting will be revised. Roger pointed out that this was an undefined term which would make it difficult to administer. Lance asked if there were other lists of qualified people in the state.

John said that the Water Quality Association (WQA) covers most of the issues related to water treatment systems. John also noted that a Vermont Plumbing inspector said there is interest in the plumbing community for additional training in water treatment issues.

Anne said that Commissioner Pelosi is concerned about having only Professional Engineers eligible to prepare permit applications. Anne asked if existing water treatment specialists referred larger projects to professional engineers.

Gary asked if the current specialty plumbing license for installing water treatment systems would be appropriate to determine qualified designers. Claude said it appears

that we are just recovering old ground with this discussion. Anne asked for Lance's opinion on what concerns the professional engineering community have about water treatment system designs. Lance responded that he did not think the group was very concerned about treatment systems for small scale (non-public) systems.

Lance suggested that if it is not practical to have a state list of qualified designers there should be a warning (informational) statement advising landowners to review the qualifications of any person they might hire to design a water treatment system.

John said that he had just finished some plumbing training. One point that came up was that the state plumbing license for water treatment is only required when the water is from a public water system and that even then enforcement with regard to SRFs is low. Anne said that it did not appear the specialty plumbing license by itself would be a good choice. Anne suggested not creating a definition of qualified designer and accepting anyone with either a professional engineer's license or the plumbing specialty license.

Lance asked Roger if all projects installing water treatment will need a state permit. Roger replied that the assumption is there would be a permit by rule. Anne noted this might also be called a conditional exemption which is how the current Rules cover the exemptions.

Lance asked if someone with a specialty plumber license is able to determine if the problem is related to septic contamination. Anne said this issue would be covered by use of a diagnostic checklist.

Anne noted that we should notify the Department of Public safety if we end up proposing to rely on the specialty license.

Primary Standards

Moving to a discussion focused on just treatment for primary standards, Roger asked if there is support for deregulating treatment for primary standards for non-public water systems.

Lance asked why all new wells do not require water quality testing. Roger said this was the existing practice and that when reviewed in the past there was not much support for adding the requirement, however with the time of sale and change in use definitions it may make sense in the future.

When the issue of disposal of radioactive contaminants was considered John said that radium is easily regenerated off resin filters but that uranium is not. Rodney asked if there are situations where radioactivity is so high that the appropriate answer is to close the existing source well rather than dispose of filter backwash with high levels of contamination into shallow placed disposal systems. John said there might be a few places where this would be appropriate, noting that in Plymouth he had projects with high

radon, high radium, and high uranium. John said he had also worked on systems to treat lead, arsenic, nitrate, and manganese. John also looks for coliform when he finds high sodium chloride levels.

There are various types of water treatment systems. Reverse osmosis systems can be so expensive that a new source is a better choice. Lead treatment systems might use ion-exchange with discharge of the backwash into the ground. Arsenic would usually be resin filters, which strongly hold the arsenic, with disposal of the filters in a landfill. Reverse osmosis is possible for arsenic removal but is not used a lot. Anion water filters can also remove arsenic. Hydrocarbons are usually removed with carbon filtration and the hydrocarbons that are collected are removed from the site. Most of the ion exchange systems depend on substituting sodium for the contaminant and when these are backwashed the contaminants are discharged into the disposal system.

Items prioritized for discussion with high, low, and medium ranking

1. Soil identification vs. perc test **medium**
2. Curtain drain with presumption of effectiveness **high**
3. Revisions to desktop hydro chart **medium**
4. Minimum amount of sand under a mound **high**
5. Grandfathered design flow and conversion of use policy **high**
6. Updating of design flow chart **high**

Executive Committee

John Forcier, Steve Revell, Lance Phelps, Phil Dechert, and Roger Thompson
Alternates – Chris Thompson, Bernie Chenette, Spencer Harris, Jeff Williams

Subcommittees

Hydrogeology - Allison Lowry, Craig Heindel, Dave Cotton and Steve Revell.

Training subcommittee - John Forcier, Roger Thompson, Allison Lowry, Dave Cotton, and Barbara Willis.

Drip Disposal – Roger Thompson, Dave Cotton, Steve Revell, Alan Huizenga

Water treatment systems – Gail Center, Jeff Williams, Rodney Pingree, Dave Cotton, Lance Phelps, and Roger Thompson.